



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/562,449	12/27/2005	Eiji Shiba	055053-0105	3547
22428 7590 07/25/2011 FOLEY AND LARDNER LLP SUITE 500 3000 K STREET NW WASHINGTON, DC 20007			EXAMINER ZEMEL, IRINA SOPHIA	
			ART UNIT 1765	PAPER NUMBER
			MAIL DATE 07/25/2011	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/562,449

Applicant(s)

SHIBA ET AL.

Examiner

Irina S. Zemel

Art Unit

1765

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 May 2011.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4 and 6-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4 and 6-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-940)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION***Claim Rejections - 35 USC § 103***

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 1-4 and 6-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over either one of WO 02/14423 to Kuraray Co., (hereinafter "Kuraray") or JP 001-26663 to Sanwa Kako KK., (hereinafter "Sanwa") in combination with US Patent 5,110,842 to Uejikkoku et al., (hereinafter "Uejikkoku") or US Patent 4,918,112 to Roox, (hereinafter "Roox").

The disclosure of Kuraray, Sanwa and Uejikkoku are disclosed in the previous office actions incorporated herein by reference.

While Uejikkoku does not expressly name metacrylic acid monomers, it is known in the art that "acrylic acid monomers" are generically referred to acrylic and methacrylic acids. In addition, even if, the disclosure of Uejikkoku is limited to acrylic acid, use of its homologue would have been obvious as per established case law. Specifically, homologs (compounds differing regularly by the successive addition of the same chemical group, e.g., by -CH₂- groups) are generally of sufficiently close structural similarity that there is a presumed expectation that such compounds possess similar properties. *In re Wilder*, 563 F.2d 457, 195 USPQ 426 (CCPA 1977). See also Roox disclosing functional equivalence of EAA and EMAA copolymers as additives to ethylenic compositions (col. 2, lines 19-23).

Art Unit: 1765

Further, Rook discloses that addition of ethylene/polar monomer copolymers to ethylene polymers . including ethylene-alpha olefin copolymers improves adhesion properties of the foams based on such compositions. Therefore, it would have been obvious to add ethylene/polar monomer copolymer, including EMMA copolymer to compositions of Sanwa or Kuraray to obtain foams with improved adhesion properties where such properties are desired for specific end use.

Response to Arguments

Applicant's arguments filed 5-18-2011 have been fully considered but they are not persuasive. Insofar as the applicants underlined "methacrylic acid" as their claimed component (without presenting any arguments regarding the differences between Uejikkoku and the claimed invention), the obviousness of use of such copolymer is discussed above in the body of the rejection.

The applicants argue that the secondary reference does not recognize improvements in tear strength resulting from addition of EMMA copolymer and also does not recognize improved adhesive strength. First, even if, such results are unexpected, it has been long established by the case law that the discovery of a previously unappreciated property of a prior art composition, or of a scientific explanation for the prior art's functioning, does not render the old composition patentably new to the discoverer; see *Atlas Powder Co. v. Ireco Inc.*, 190 F.3d 1342, 1347, 51, USPQ2d 1943, 1947 (Fed. Cir. 1999). Thus, the claiming of a

Art Unit: 1765

new use, new function, or unknown property which is inherently present in the prior art does not necessarily make the claim patentable; see *In re Best*, 562 F.2d 1252, 1254, 195 USPQ 430, 433 (CCPA 1977). Therefore, even if, some of the properties are, arguably, unexpected, such finding does not render otherwise composition patentable over the prior art.

Second, the improvements in adhesion properties are completely expected at least as per teachings of Roox. Further, it is expressly noted on the record that the applicants did not recognized any advantages of using one ethylene/polar monomer copolymer over the other and disclose all of the copolymers listed on pages 12-13 as equally suitable for the invention, specifically listing both unsaturated carboxylic acids and vinyl acetate monomers as preferred embodiments, with ethylene/vinyl acetate being the most preferred embodiment (page 13, lines 15-21 of the instant specification). Therefore, simply because one specified embodiment containing a specific components in specific amounts where one of the components is EMMA exhibit slightly improved tear strength does not render the claimed invention non-obvious, nor it is tantamount to showing of unexpected results that would be sufficient to overcome the established prima facie case of obviousness. In view of the applicants own disclosure that EVA is the most preferred embodiments, the applicants arguments concerning the differences between examples 5 and 6 (both marked as embodiments within the scope of the invention) are not convincing. It is also noted that example 1 lacking any ethylene/polar monomer copolymers is also considered by the applicants as within the scope of their

Art Unit: 1765

invention. Therefore, recognition, post factum, of some advantages of one specific illustrative example can hardly be considered showing of unexpected results that can rebut the strong prima facie case of obviousness established by the examiner. In addition, the example referred to by the applicants as showing of unexpected improvements, i.e., illustrative example 6, is not commensurate in scope with the claimed invention at least for the reasons that the claimed compositions can contain the claimed components in the amounts varying from 5-95 pbw (both components (A1) and (B), and from 5 to 1900 pbw of the EMMA copolymer (A2), while the referenced example illustrates just one composition containing, for example, large amounts of components (A1), smaller amount of components (B) and very small amount of components (A2) as compared to the claimed amount ranges.

Therefore, the invention as claimed is still considered to have been obvious over the combined teachings of the cited prior art references.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Irina S. Zemel whose telephone number is (571)272-0577. The examiner can normally be reached on Monday-Friday 9-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck can be reached on (571)272-1078. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1765

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Irina S Zemel/
Primary Examiner, Art Unit 1765

Irina S Zemel
Primary Examiner
Art Unit 1765

ISZ